

Title: Realistic and Unrealistic Optimism about Smoking Consequences: Implications for Beliefs in Smoking Myths and Self-Protective Motivation

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Research Questions:

Are smokers who are unrealistically optimistic:

- a. More likely to believe in myths about smoking?
- b. Less likely to smoke “light” cigarettes?
- c. Less likely to list quitting as an important cancer prevention strategy?
- d. Less likely to see smoking as a cancer risk?
- e. Less likely to plan on quitting?

Are smokers with prior exposure to cancer less likely to be optimistic?

Study Description/Rationale:

Groups of people are often optimistic, in a relative sense, about their likelihood of suffering from illness and disease. In other words, when asked to compare their risk to that of similar others, most people see themselves as below average. Smokers exhibit this optimistic effect when asked about their risk of disease (Ayanian & Cleary, 1999). Some researchers have called this effect “unrealistic optimism,” but it is not necessarily so at the individual level. That is, some people are actually at lower risk compared to others; these individuals might be called “realistically optimistic.”

Very little research has examined the consequences of unrealistic optimism, largely because it is difficult to define respondents’ levels of actual risk. HINTS, however, presents an intriguing opportunity, when connected to a risk data base maintained by the National Cancer Institute (NCI). Specifically, the HINTS survey includes at least some of the data used to compute the risk of dying from lung cancer on the NCI website. In addition, the HINTS survey asked smokers to indicate their risk of lung cancer and the risk of the “average cigarette smoker.” Taken together, these data would allow us to identify smokers who are a) not optimistic, b) realistically optimistic, and c) unrealistically optimistic. We can then ask the important question of whether or not such categorizations matter.

Variable List:

HE7 Age & Gender
TU3-4 Number of cigarettes smoked/day
CK4 Mention that quitting smoking decrease cancer risk?
CK14a Agree that smoking causes cancer
TU5 Plan to quit smoking
TU9 Myths about smoking

TU10 Smoke light/ultra-light cigarettes
TU15 Average cigarette smoking risk of lung cancer
TU16 Own risk of lung cancer
CH1 Ever had cancer?
CH4 Family members ever had cancer?

Method of Analysis: Using three HINTS variables (gender, number of cigarettes smoked per day and age), we will estimate each smoker's "actual" risk using the NCI lung cancer risk website and divide the sample into three groups: "average," "below average," and "above average" risk. Unrealistically optimistic smokers will be those who see their risk as below average and whose actual risk is average or above average. Realistically optimistic smokers will be those who see their risk as below average and whose actual risk is below average. Smokers who are not optimistic will be those whose risk estimates match their actual risk (whether they are below average, average, or above average). These three groups will then be compared on a variety of outcome measures, including beliefs in myths about smoking, likelihood of smoking "light" cigarettes, whether or not they listed quitting smoking as an important cancer prevention strategy, whether they are less likely to see smoking as a cancer risk, and whether they plan to quit smoking. The latter analyses will rely on analysis of variance tests for continuous measures and chi-square tests of association (or odds ratios) for dichotomous outcomes.

References:

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Targeted Journals:

Journal of Risk and Uncertainty, Addictive Behaviors, Cancer Epidemiology Biomarkers and Prevention